

ABSTRACT OF THE DISCLOSURE

The moisture profile and/or moisture gradient of a paper web of at least SC quality paper is controlled in a paper machine comprising a calender (1) which has at least two roll stacks (21, 22; 31, 32), one stack has at least three rolls and another has at least five rolls. The web is moisturized to a desired pre-moisture content M1 by a pre-moisturizer (7) before the calender. At least one intermediate moisturizer (3) is arranged between two roll stacks moisturizes the web to a desired intermediate moisture content M2 before the last roll stack (31, 32), in which the web is dried to a desired final moisture value M3. For continuously controlling and optimizing the moisture profile and/or moisture gradient of the web, the pre-moisturizing W1 of the web is controlled by a pre-moisturizer (7) control parameter which corresponds to the final moisture value M3 of the web.